Marine Corps Warfighting Laboratory

Project Metropolis
Peacekeeping Operations (PKO)
and
Peace Enforcement Operations (PEO)

To improve Naval expeditionary warfighting capabilities across the spectrum of conflict for current and future operating forces.

Platoon Level Experiments

Experiment After Action Report

December 2001

UNITED STATES MARINE CORPS
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From: Commanding General

Subj: PROJECT METROPOLIS (PROMET) PEACE ENFORCEMENT/PEACE SUPPORT OPERATIONS (PKO/PEO).

Encl: (1) ProMet Peacekeeping Operations and Peace Enforcement Operations (PKO/PEO).

1. This report gathers, organizes and synthesizes knowledge from live, force-on-force experiments conducted by the Marine Corps Warfighting Laboratory as the initial phase of a series of experiments focused on PKO/PEO.

2. We conducted experiments with Marines from 3rd Platoon (rein), Lima Company, 3rd Battalion 5th Marines, 1st Marine Division during the period 1-29 June 2001. All of the experiments took place in the Camp Pendleton MOUT Facility against a dedicated opposition force.

3. These experiments looked at issues associated with urban patrolling, house and vehicle searches, and personnel and vehicle checkpoints.

4. Although much more experimentation is needed, our initial results are positive. They give us some clear indications of good ways to prepare Marines for peacekeeping and peace enforcement missions.

5. We will continue to search for better ways to fight and win more effectively and efficiently across the spectrum of conflict for current and future Operating Forces.

WILLIAM D. CATTO

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Executive Summary

Background. The Marine Corps Warfighting Laboratory (MCWL) conducted the first phase of the Project Metropolis (ProMet) Peacekeeping Operations/Peace Enforcement Operations (PKO/PEO) experimentation. This effort focused specifically on urban patrolling, house, vehicle and personnel searches, and checkpoint operations, during the period 1 June to 29 June 2001 at the Camp Pendleton MOUT facility. The 3rd Platoon (rein), Lima Company, 3rd Battalion / 5th Marines was the experiment force.

Scope. This is a report of what we learned in these two areas.

1. Training of the experiment force in experimental tactics, techniques and procedures (TTPs) as they specifically relate to PKO/PEO.
2. Execution of experimental TTPs.

Satellite Patrolling and Multiple Task Organizing. Our experiments tend to show that the patrol organization used by the UK Forces; i.e., the S*atelliting* method and *Multiple* task organization, has a great deal of promise to be effective in the PKO/PEO environment. This organization/technique is as follows.

1. Satellite patrolling employs a command element on a primary axis, with squads or elements moving as entities, in front of, behind and parallel to the command element.
2. A *multiple* consists of four fire teams with four men in each (four x four) derived from a restructured platoon task organized into two multiples.
3. Each multiple has a command element based on the Platoon Commander or Platoon Sergeant 'blistered" onto one of these four man teams Each multiple moves in different directions while "satelliting" off the command element as shown in the two "snapshots" in Figure 1 (adjacent). Note the multi-directional movement of the multiples. This reduces/eliminates predictability and keeps the threat off balance while maintaining spherical security and mutual support.

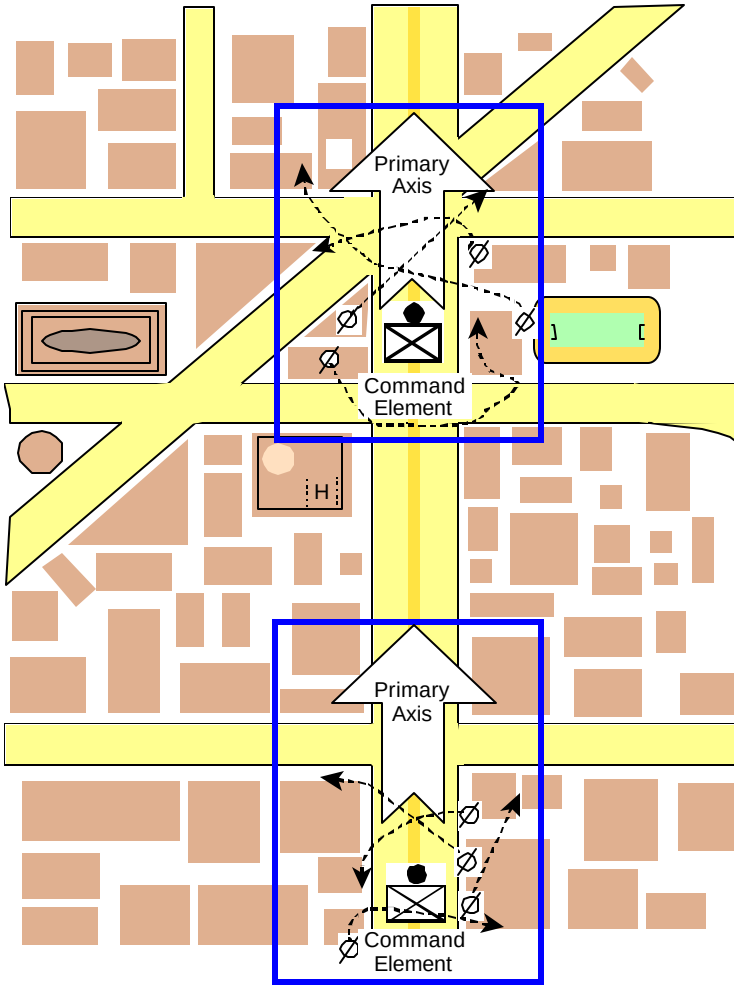


Figure 1. Movement of Multiples

4. The platoon commander retains overall command and control of the entire platoon but his immediate focus is on the maneuver of his multiple.
5. The platoon Sergeant commands and maneuvers the second multiple.
6. Fire teams move around the command team as it moves on the primary patrol route.
7. Fire team movement, including the team with the command element attached, is the responsibility of the team leaders.
8. Within the teams, the movement methods of bumping, bounding and overwatch, are employed.

House Searches. We established, based on the threat, that the platoon would be able to conduct an initial house search *without* significant additional support or the requirement for training dedicated searchers

Checkpoint Operations. The vehicle checkpoint (VCP) operations also proved successful when using the multiple asset approach.

1. The method used in the experiment satisfactorily achieved the objective. This method should be used in conjunction with other quick or "snap" methods to provide greater flexibility for the commander.
2. Further development and experimentation of these methods is required.

Communications. Secure, lightweight communications do not currently exist between the platoon commander and his subordinate leaders. This is a significant deficiency for platoon level PKO/PEO.

1. See the *Tactical Warrior* (Information Warrior) Platoon Level After Action Experiment Report of December 2001 to see how further experiments are addressing this issue.

Basic Urban Skills Training (BUST) Package. Due to reduced availability of the experiment force, we had to present only focused training in peacekeeping and peace enforcement operations, rather than teaching the full 10 day BUST package prior to moving on to PKO/PEO. Although we have confidence in the form and content of BUST, we saw during this experiment that it derives its effectiveness when taught sequentially and in its entirety *before* focusing on PKO/PEO. The absence of fundamental urban fighting tactics, techniques and procedures (TTPs)—gained from BUST—appeared to disadvantage Marines and reduce their potential to achieve a necessary level of proficiency in PKO/PEO.

PKO/PEO Skills Training. Marines showed that that their PKO/PEO training should be expanded to include some of the non-traditional warfighting skills such as interpersonal communications skills to enable them to respond properly and effectively in the PKO/PEO environment. For example, Marines need to quickly recognize potentially volatile situations while in the midst of an urban population. They also need to be trained in ways to collect basic information while patrolling in the urban environment.

Equipment. We saw that Marines can have their PKO/PEO responsiveness significantly degraded when they do not have nonlethal means—in addition to their normal lethal options—to respond to emerging situations.

Facilities. Although the Camp Pendleton MOUT facility is adequate for tightly focused PKO/PEO, realistic maneuver training for satelliting above platoon level may not be effective.

Follow On Experiments. This is the first event in a series of experiments aimed at developing a training package for PKO/PEO for the Operating Forces. We will continue to expand our experiments—and timely reporting to the Operating Forces—in this area.

Experiment Overview

Context. In a dedicated effort to improve chances for mission success and reduce friendly casualties, *Project Metropolis* (ProMet) has addressed many of the complex issues associated with high intensity fighting in the urban environment. The 31st Commandant described this high intensity as *Block III* of a "Three Block War." Our experiments have designed and developed a number of effective tactics, techniques and procedures (TTPs). We have also evaluated some limited specialized technology enablers. Most important, the ProMet staff has developed a comprehensive training package titled *Basic Urban Skills Training (BUST)*, to support the integration of these results into the Operating Forces. We have also input these results into Marine Corps doctrine, principally a significant revision to MCWP 3-35.3 *Military Operations on Urbanized Terrain*.

Our Experiment Campaign Plan, as evidenced by the subject of this report, is now refocusing on the challenges of peacekeeping and peace enforcement operations (PKO/PEO) typical of *Block II* of the "Three Block War." Our goal is to provide the best possible information to the Operating Forces as they support current and emerging Marine Corps taskings for short notice peacekeeping and peace enforcement contingencies.

Venue. MCWL conducted the PKO/PEO experiments at the Camp Pendleton MOUT facility between 1 June and 29 June 2001. We also constructed a ProMet shooting house (tarpaper house) on the edge of the MOUT Facility to train Marines on techniques of squad entry and room clearing drills. The Camp Pendleton MOUT facility proved adequate for the conduct of the experiment. The buildings are excellent and are very well suited to the conduct of conventional attacks and building clearances. While the entire facility readily supports conduct of *linear* conventional platoon and company level training it is somewhat limited to support the conduct of patrolling exercises using the *maneuver principles* taught in the BUST and PKO/PEO patrolling packages.

Task Organization. Twenty eight (28) Marines from 3rd Plt, Lima Company 3/5, attended the training phase and were augmented by a CAAT vehicle from Weapons Company 3/5, for the duration of the activity. Ten (10) Marines from 2nd Platoon, Lima Company 3/5, served as the experiment opposition force (OPFOR). All 38 of these Marines received an abbreviated Basic Urban Skills Training (BUST) package and initial instruction in PKO/PEO between 1 June and 9 June. Experiments focused on patrolling, house searches and vehicle checkpoint operations were conducted between 25 and 29 June 2001. In addition to the "shooters," 1st FSSG provided 25-28 role players to simulate the noncombatant population. Interpreter support—a Spanish speaking MP—was provided to the platoon for an event that simulated Spanish-speaking (only) role players.

Our baseline event used the standard T/O. The remaining events used a T/O to reflect of the *Multiple* formation as employed by the UK Forces. The platoon was reinforced for all events by the CAAT team mounting a .50 caliber machine gun on a HMMWV from Weapons Company.

Observer/Controllers (O/Cs). The ProMet staff provided the nucleus of the O/C network. In addition to the Marine Corps personnel, this included a Royal Marine Infantry Lieutenant Colonel and an Australian Infantry Major. The ProMet staff includes subject matter experts (SMEs) in Infantry, Armor, Combat Engineers and Rotary Wing Attack Aviation. The permanent staff also includes contractors, who as former Marines provide consultancy on concept development, experimental design, data analysis and knowledge synthesis. Additional SMEs from the Marine Corps, sister services and Allied military forces augmented the O/Cs. This expanded O/C group had considerable experience in PKO/PEO in Somalia, Liberia, Northern Ireland, Kosovo, East Timor, Syria, Israel and Bosnia. Within this group there was also considerable combat experience from the Vietnam and Falklands wars. The source of O/Cs is detailed below:

Off	SNCO	NCO	Civ	Source
7		1	3	MCWL (including 1 UK and 1 Australia)
			1	MOUT ACTD
	1			II MEF SOTG
		3		1ST MarDiv MOUT Instructors
		4		1ST MarDiv H&S BN (MPs)
2				USA Infantry School Ft. Benning
2	1			RM (UK) 45 Commando
1				Australia Exchange to USA Infantry School
12	**2**	**8**	**4**	**Total**

Experiment Hypothesis. This is the hypothesis for the experiment:

That properly trained and equipped MAGTFs can conduct effective peacekeeping and peace support operations as well as being prepared to transition seamlessly to high intensity urban operations when the situation warrants. That these operations can be conducted with minimum noncombatant casualties and collateral damage, and friendly casualties of less than 20% (during high intensity operations).

Experiment Objectives. From this hypothesis, we formulated these five objectives.

1. Develop the necessary lesson plans and supporting documents for teaching patrolling in support of PKO/PEO.

2. Develop the necessary TTPs to conduct urban patrolling in support of PKO/PEO.

3. Develop the necessary TTPs to conduct vehicle and personnel control points, supported by active patrolling.

4. Develop the necessary TTPs to conduct a seamless transition PKO/PEO to mid-high intensity conventional operations.

5. Develop the necessary TTPs to conduct combined arms patrols in both PKO/PEO and mid-high intensity conflict.

Experimental Design and Methodology. Four experimental events were designed to examine TTPs for urban PKO/PEO patrolling, house searches, and checkpoint operations. Each event was based on a scripted scenario. Within these scenarios, specific incidents were planned to test and evaluate the experimental TTPs. Role players from 1st FSSG were employed to simulate the local/noncombatant population and nongovernmental organizations (NGOs) that could be logically encountered in a PKO/PEO. The role-players were rehearsed in each of the specific incidents and coached in how they should generally act/react. Role players were then free to operate within the broad guidelines of this coaching.

Data Collection. Information on casualties was extracted using the Multiple Integrated Laser Engagement System (MILES) 2000 scoring system and body hits by *Simunitions* (waxy, paint ball type munitions fired from a special upper receiver fitted onto the Marine's M16/M4 rifle). O/Cs made subjective assessments throughout the experiments. For the night event, only MILES 2000 was used. O/C observations were merged with hard data weapons hits to reconstruct events for the purpose of analysis and synthesis. These observations were also used to provide the platoon with direct and timely feedback on performance every day.

Assumptions. These three assumptions underpinned the experiments:

1. The platoon will operate in an environment where no civil law and order function is being performed.
   a. This situation is typical of previous Marine PKO/PEO deployments.
2. The rules of engagement (ROE) issued to Marines are robust and clear, permitting freedom of action to achieve the missions assigned,
   a. Like real world ROE used by USMC Operating Forces.
3. All of the PKO/PEO tasks can be completed by the platoon using its "come as you are" standard T/O (task organized when employing the *multiple* formation) and T/E, without significant specialist support. Exceptions in this area may be the addition of translators, combat engineers or military police.

Patrol Organization. Except for the baseline experiment, force patrol organization was based on the UK Forces S*atelliting* method and *Multiple* task organization—taught as part of the mid to high intensity conventional warfighting BUST package.

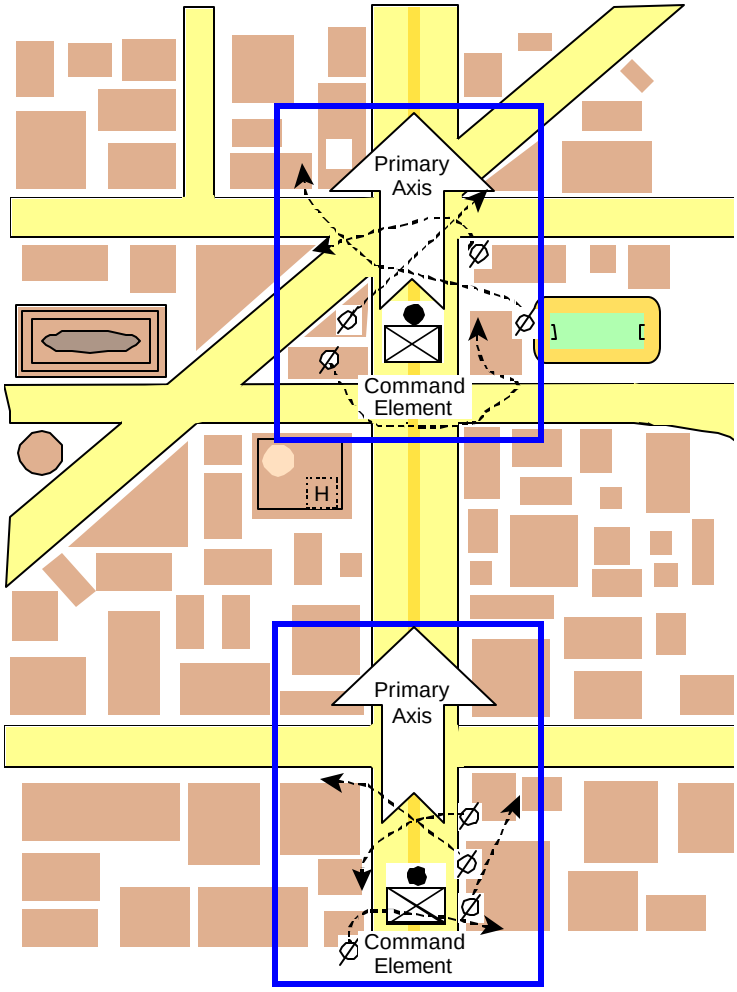
1. **Satellite Technique.** This patrolling employs a command element on a primary axis, with squads moving as entities, in front of, behind and parallel to the command element.

> The PKO/PEO tactic employs the *satelliting* technique using a restructured platoon task organized into two *multiples.*

2. **Multiple Formation**. Each multiple consists of four fire teams with four men in each (four x four). A command element based on the Platoon Commander or Platoon Sergeant was 'blistered" onto one of these four man teams. That is, there are two multiples in each platoon; one led by the Platoon Commander and one led by the Platoon Sergeant.

Patrol Maneuver Concept. When conducting patrols:

1. The Platoon Commander retains overall command and control of the entire platoon but his immediate focus is on the maneuver of his multiple.
2. The Platoon Sergeant commands and maneuvers the second multiple.
3. Fire teams move around the command team as it moves on the primary patrol route.
4. Fire team movement, including the team with the command element attached, is the responsibility of the team leaders.
5. The movement methods of bumping, bounding and overwatch, are employed within the teams.
6. Figure 1 (repeated from the Executive Summary) illustrates two "snapshots" in time of movement of the satellite patrol and the changing of the multiples as the patrol progresses along the primary axis. Each multiple has a command element based on the Platoon Commander or Platoon Sergeant. Each multiple moves in different directions while satelliting off the command element as shown above. Note the multi-directional movement of the multiples. This reduces/eliminates predictability and keeps the threat off balance while maintaining spherical security and mutual support.



Regardless of the environment or level of conflict, the intent of satelliting is to retain the initiative and most important, maintain flexibility to respond to any developing situation.

House Searches. A likely task for a platoon conducting PKO/PEO is house searches. Based on the *Block II* threat designed in the experiment, we established that the platoon would be able to conduct an initial house search without significant additional support or the requirement for training dedicated searchers (as is required by the British forces in Northern Ireland). The TTPs for the house search involved these four phases:

1. Establish an outer security cordon. This involved a multiple conducting satellite patrolling on approaches to the objective in order to provide security to the inner cordon and search teams.
2. Position an inner security cordon. This was one of the tasks given to the second multiple. It involved the provision of security to the immediate area of the objective.
3. Conduct the search and other actions at the objective.

4. Withdraw each multiple.
   a. To the patrol base, or
   b. continue with the patrol.

Checkpoint Operations ¾ Vehicle Checkpoints (VCPs). Using the experiment assumptions, we experimented with TTPs developed from previous experiments, Marine Corps doctrine and US Army and foreign force material. The VCP TTP used these four phases:

1. Establish an outer security zone or cordon—using one multiple.
   a. This multiple used the satelliting methods to provide security for the other multiple completing the actual search and control operations.
2. Establish an inner protective zone focused on the two tasks of providing security for the search teams and the actual conduct of the search.
   a. Phase two is completed by the second multiple.
3. Conduct the search.
4. Withdraw from the VCP
   a. to the firm base, or
   b. continue the patrol (each multiple).

Training. Training of Marines for this experiment started with the BUST package and then switched to PKO/PEO specific training that focused on multiple patrolling and various search tasks.

Instructional Staff. The Chief Instructor was from MCWL. Other instructors were drawn from 1st MarDiv MOUT School, 2nd MarDiv SOTG, 1st MarDiv H&S Bn (MP Company). The instructors were responsible for the delivery of theory and practical application lessons. This mix of instructors proved very effective under the circumstances of the short preparation time available.

Training Schedule. This was the daily schedule for the Block II experiment training:

1. Day 1. (BUST).
   a. Introduction to the urban environment.
   b. Introduction to the urban threat.
   c. Movement in the urban environment;
      (1) theory and practical application.
   d. Urban navigation theory.

2. Day 2. (BUST).
   a. Assaulting;
      (1) theory and practical application.
   b. Forcible entry;
      (1) theory and practical application.
   c. Urban observation and reporting.

3. Day 3. (BUST).
   a. Clearing;

(1) theory and practical application.
b. *Go firm* drill;
(1) theory, and
(2) practical application.

4. Day 4. (BUST).
a. Introduction to counter sniper operations;
(1) theory, and
(2) practical application.
b. Patrolling—practical application.
c. Considerations for night operations—theory.

5. Day 5. (BUST).
a. Day and night patrolling in the urban environment—practical application.

6. Day 6. (PKO/PEO).
a. Introduction to PKO/PEO theory.
b. Rules of engagement theory.
c. Patrolling for PKO/PEO;
(1) theory, and
(2) practical application.

7. Day 7. (PKO/PEO).
a. Intro to Searching: Vehicles, Personnel, Buildings
(1) theory, and
(2) practical application.

8. Day 8. (PKO/PEO).
a. Patrolling in a PKO/PEO environment—practical application.

Training Syllabus Adjustments. The BUST and BUST II packages have a comprehensive combined arms curriculum and incrementally develop individual, squad and platoon urban warfighting skills. This package forms the skills foundation for all Marine urban operations, regardless of the spectrum of conflict or the level of operational intensity.

Every Marine, regardless of rank and MOS, attended the BUST classes. With the wide range of experience within the platoon, the information provided was refresher for some and new material for others. This method ensures a common understanding of the material throughout the unit undertaking the experiment.

For this experiment, the BUST package was modified to conform to the number of training days allocated for activity. Some classes deemed necessary only for operations in mid-high intensity conflict were omitted in order to incorporate the required PKO/PEO periods of instruction. The supplemental PKO/PEO training focused on the essential skills of patrolling, control operations and the searching methods for houses, vehicles and personnel.

Although the platoon achieved the level of proficiency in skills required for the follow on PKO/PEO training and the experiment, it was clear that they would have benefited greatly from the additional four days of training associated with the full BUST package. Thus, we recommend that the BUST package only be shortened under exceptional circumstances in order to get the most from any operation or experiment.

Discovery Learning. Based on post training comments and observed performance during the experiment, we will bolster the PKO/PEO curriculum to include a number of additional theory lessons as follows:

1. *Crowd Dynamics*.
   a. Understanding the characteristics of crowds and their behavior.
2. *Force Escalation*.
   a. Understanding the force continuum and how to escalate levels of force to meet or counter the immediate threat.
3. *Nonlethal Weapons (NLW)*.
   a. Survey the types available.
4. *Equipment*.
   a. Knowing what equipment is available to Marines deployed during these types of missions.
   b. Knowing how to use this equipment.
5. *Checkpoints.*
   a. Understanding the difference between deliberate vehicle checkpoints (VCP) and hasty or snap VCPs.

Practical Application (PA) Sessions. The practical application lessons involved demonstrations of techniques and methods by a team of instructors. This method allowed Marines to see the correct techniques and have the opportunity to ask questions before completing the tasks themselves. These "hands on" sessions allow Marines to work on individual, fire team, squad and platoon TTPs under supervision. During these periods, the instructors provide Marines additional guidance and reinforcement. These were the PA periods for the (shortened) BUST package:

- Breach windows containing sheet glass.
- Breach doors.
- Assault a building from a second story.
- Patrol an assigned tactical area of responsibility (TAOR).
- Conduct an attack using Simunition in the tarpaper *shooting house*.
  - This is a framework house constructed of timber with interior and exterior cladding of black plastic or tarpaper.
  - Designed so that the simunitions penetrate the walls.
  - This demonstrates the danger of an enemy firing through the wall during room clearing operations.
- Attack objectives.
- Sniper reaction drills.
- Urban navigation.
- Effective use of the ISR.

These were the PA periods for the specialized PKO/PEO training:

- Set up of vehicle checkpoints.
- Search of individuals.
- Search of houses.
- Search of vehicles.
- Patrol in an urban PKO/PEO environment.

PKO/PEO Training Approach. The experiment involved realistic scenarios based on real world operational scenarios (e.g., Somalia, Kosovo, etc.) including the supporting orders and realistic ROE. They also included the use of role players who were trained and rehearsed to simulate some of the complexities of the human interaction encountered in PKO/PEO.

Training Shortfalls. Unfortunately, the three days allotted for PKO/PEO training was insufficient to cover all of the requisite lessons and allow for adequate practical application. We think that seven to ten training days would be the optimum number of days to allocate to the entire PKO/PEO training package. This would permit Marines to gain a full understanding of the *multiple* patrolling techniques and the associated control and search operations.

Daily Experiment Procedure. The platoon commander was issued orders *the day prior* to the activity. This permitted him to complete his mission analysis and complete the planning process in advance. On the day of the experiment he was re-briefed on the experiment objectives and given an outline of potential events and incidents. The Platoon commander then issued orders to his platoon. O/Cs closely followed the orders delivery process and follow up activity in order to track dissemination of information and assess mission preparation. The experiment ensued. At its conclusion, the O/Cs reconstructed the event and developed information that was provided as feedback to the platoon leadership and the role-players. This process was repeated after each experimental event.

In addition to the reconstruction, we gathered demographic information on each day's participants. This gave us greater detail on the training and experience of Marines participating in every discrete event. We also used student critiques to help us assess all instructional periods and experiment activities.

The overall scenario supporting the experiment was closely aligned to real world operations conducted by Marines in the Balkans. The rules of engagement issued to support the experiment were based on the actual cards issued for operations in the Balkans.

Sample Experiment Scenario. Here is an outline of the scenario issued to the Marines.

"The province of Sovo was occupied by forces from Greater Steria tasked with putting down the dissenting Alban majority seeking autonomy from the ruling government. The forces from Greater Steria being largely ex Yugos federation troops were welcomed into Sovo by the Sterian minority who wanted to remain part of the republic.

In the ensuing months of occupation there were numerous incidents of ethnically motivated violence and abuse. This created a massive migration of largely Alban refugees into neighboring countries. Pressure by the international community, both militarily and diplomatically, on the Sterian government forced the withdrawal of the Yugos forces from Sovo.

Accordingly, the US government agreed to the deployment of Marines of into Sovo to stabilize the situation and to fill the void created by the Yugos force departure. The Marines were tasked with ensuring the Yugos forces adhered to the M*ilitary Technical Agreement (MTA)* covering the withdrawal and establishing and maintaining a safe and secure environment within the province. Tension was expected between the withdrawing Yugos forces and Marines peacekeepers, but it was also expected between the Alban majority who see this withdrawal of Yugos forces as a strategic victory in the fight for autonomy and the ethnic Sterians who sided with the occupying Yugos troops and have decided to remain in the province".

Please review the assumptions (*listed earlier in this report*) that support the conduct of this experiment. Understanding them provides an insight into how these types of tasks would be completed by the Marine Operating Forces.

26 June 2001 Experiment Day 1¾ Event 1

Objective.

1. Establish a baseline for the conduct of platoon PKO/PEO patrol in the urban environment.

Patrol Order/Event Scenario:

1. Conduct a presence/security patrol in the town.
2. Establish a baseline for comparison with the results from future events involving the technique of *multiple* patrolling.
3. Endstate outlined in the company commander's orders is:
    a. Yugo Army adherence to the *Military Technical Agreement*.
    b. A safe and secure environment within the TAOR.

Scripted Incidents:

1. Information is passed to the patrol by a local about the location of Yugo soldiers in the town.
2. NGO representatives (International Committee of Red Cross) being harassed by elements of the local population.
3. A chance meeting between the exiting Yugo soldiers and the platoon patrol.
4. Inter-ethnic violence involving a sniper shooting a local national.
5. Inter-ethnic violence involving an angry crowd who had detained a person believed to be responsible for leading reprisal killings in a neighbouring village.

Event Reconstruction.

Order of March:

2nd Squad Left Flank (Plt HQ) / 1st Squad Center / 3rd Squad Rear moving out of company patrol base

Timeline:

1330 H Hour
1339 Platoon Commander passed info regarding Yugo forces.
1342 1st Squad handles NGO incident at Playground.
1349 Run into Yugo forces~IFAV vehicle coming up against primary patrol route
1355 Yugo forces (5) escorted to handover point by CAAT vehicle.
1410 Squad moves out to left flank on Maple~C10 area.
1411 Shot fired. Squads: 1st at C7-C10 / 2nd moving west vicinity C11 –C12 / 3rd C1-C4.
1411 Two personnel leave C8- first man is shot-2nd man is apprehended-civilian casualty dragged around corner of building. 3rd Squad does not associate shots fired with the two men running out with weapons.
1419 3rd Squad checks on civilian casualty. Casualty said he was shot from C8. 3rd Squad leader believed there was still a sniper in C8. Platoon commander sent in squad to C8/C9 after getting info from wounded civilian.
1422 Platoon commander on scene. Notices apprehended man. Civilian casualty left (turned over to civilians). Dead sniper and apprehended man loaded into CAAT vehicle.

1441 Crowd dispersed at playground from shots fired from 2nd Squad. The man who was about to be hanged was turned over to Marines. 3rd Squad is located vicinity B3. CAAT vehicle and 1st Sqd pushes up and man is loaded into the CAAT vehicle.

1448 Crowd forming at A7 and B3 in response to taking the accused man into custody~3rd Squad disperses the crowd and assumes rear security.

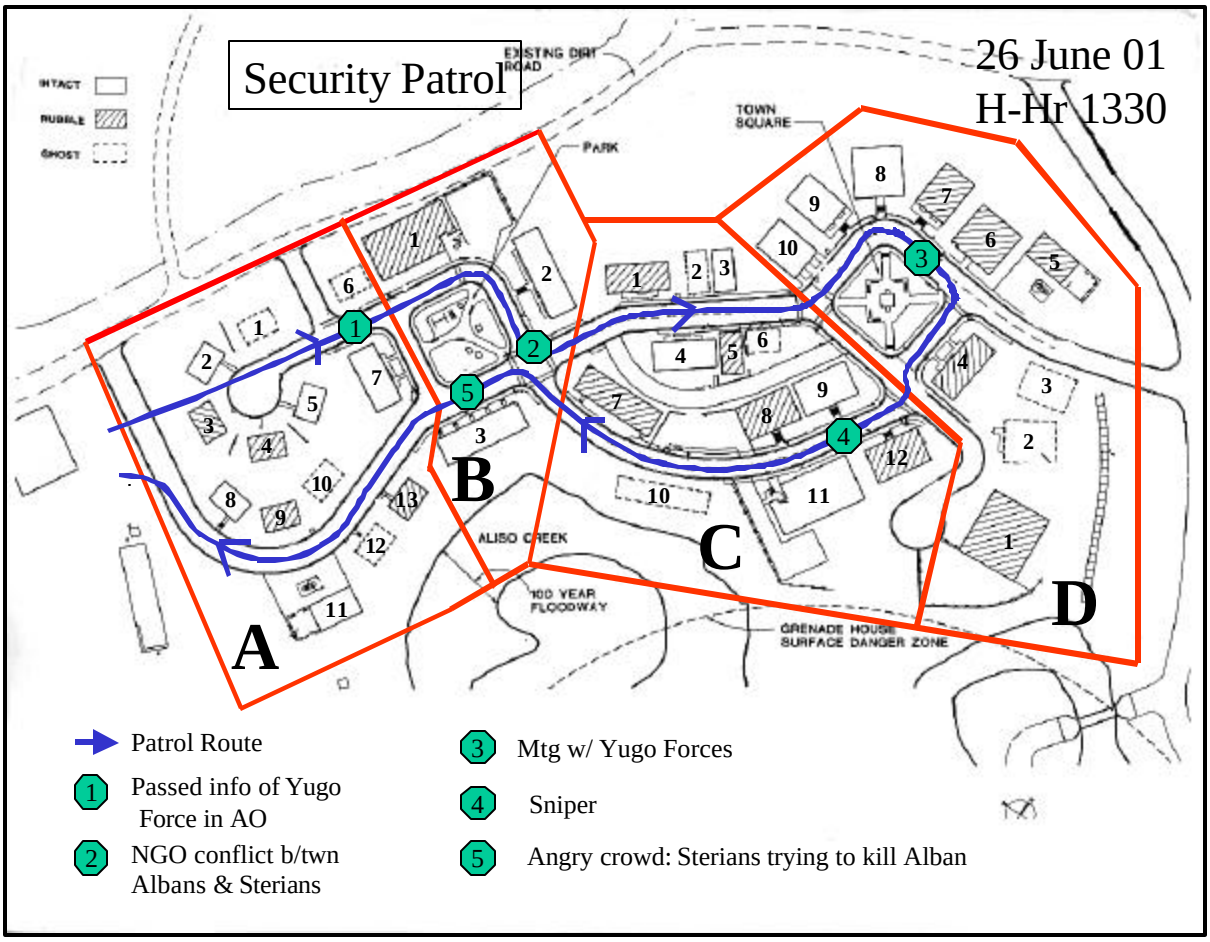


Figure 2. Patrol route and Incident Location¾ Event 1

Observations.

1. Responses to events by the platoon were enthusiastic and quick.
2. Minor incidents were handled quickly.
3. Individual squad leaders quickly appraised many situations and acted decisively.
4. Platoon often ineffectively applied the BUST patrolling and movement techniques. Several squads reverted to simply walking down either side of the street in columns.
5. Squads did not adequately provide support to each other when moving or stationary.
6. Squad movement was cumbersome.
7. Communication between squads using the Intra Squad Radio (ISR) was poor.
8. ISR not used to its full capability for controlling movement or passing information.

9. Marines were continually oriented on the direction of movement and/or activity thereby negating any spherical security for those teams involved in incidents.
10. Marine responses to incidents were limited to verbal warnings, some physical contact and lethal force.
11. Marines had difficulty communicating with the withdrawing Yugos forces in the meeting engagement and subsequently with escorting them from the area of operations.
12. No standing procedures were used for the escort of the Yugos soldiers from the AO.

Deductions.

1. Individual decisions by squad and team leaders were largely appropriate and can be expected to improve with training and exposure to the urban environment.
2. Application of the BUST patrolling and movement methods would have been improved with additional practice during the training phase.
3. The platoon involved in the experiment was inexperienced. This is reinforced by the platoon demographics that showed initially 10 Marine Privates.
4. We could have mitigated this by maintaining the integrity of the BUST package, thereby ensuring adequate time for understanding the theory lessons and optimizing the practical application periods.
5. Spherical security lapses can also be attributed to a lack of practice as a platoon with BUST techniques and inexperience in the urban environment.
6. The inability to populate the entire MOUT village with role-players to create more "normal" activity through the entire village made it extremely difficult for Marines to remain focused on their area. For example, any time noises and activity occurred, Marines assessed it as the "canned" incident that required some action as part of the experiment. This almost always led to teams being drawn towards incidents involving other teams. This situation highlights the desirability of having a larger, more realistic number of role-players to populate the MOUT villages to give a better simulation of routine and non-routine activities. This would greatly enhance the training environment and provide excellent decision making issues for Marines.
7. Poor use of the ISR was primarily driven by the lack of familiarity with the radio. Many Marines in this experiment had never used the radio before and were therefore unaware of its capabilities and how best to use it. To complicate this, most of the radios were issued without the operator's instruction booklet. One way to overcome this is to produce a small laminated card for training and use with the radio in the field.
8. Marines were limited in their range of responses to incidents. This highlights the need for Operating Forces to have both lethal and less than lethal capabilities. These capabilities range from training in negotiation and communication skills to distraction grenades and crowd dispersal munitions and ball ammunition. This will dramatically improve the Marine's ability to escalate force appropriate to the threat.
9. The difficulty experienced by the squad that encountered the Yugo troops withdrawing highlights the need for task organizing with interpreters or having some very basic language training for PKO/PEO. Another option is to provide Marines with a laminated card with phonetic spellings of basic local phrases.
10. Marines could be better prepared for PKO/PEO by focused training in interpersonal or communications skills slanted toward the cultural nuances of the indigenous population.

11. Another specialized training segment that could add value to PKO/PEO could include TTPs for escort duties; e.g., rounding up and moving noncombatants or unknown stragglers to another area.

27 June 2001 Experiment Day 2¾ Event 2

Objective.

Evaluate the suitability of the M*ultiple* method of task organizing in conjunction with S*atellite* patrolling for PKO/PEO in the urban environment.

Experimental Tactic: Satelliting with Task Organized Multiples.

The UK Forces satelliting method and multiple method of task organizing is taught as part of the mid to high intensity conventional warfighting BUST package. TTPs are as follows.

1. Employ a command element moving on a primary axis, with squads moving as entities, in front of, behind and parallel to the command element.
2. Employ a non-T/O task organized platoon of two multiples.
3. Build each multiple to consist of four fire teams of four men each (four x four).
4. Attach a command element based on the Platoon Commander or Platoon Sergeant to one of these four man teams.
5. Ensure that the Platoon Commander is in a different multiple than the Platoon Sergeant.
6. Fire-teams move around the command team as it moves on the primary patrol route.
7. Fire-team movement, including the team with the command element attached, is the responsibility of the team leaders.
8. Within the teams, employ the movement methods of bumping, bounding and overwatch.

Experimental Tactic: Command and Control.

1. When conducting the patrols, the platoon commander retains overall command and control of the platoon but his immediate focus is on the maneuver of his multiple.
2. The Platoon Sergeant leads and maneuvers the second multiple.
3. Regardless of the environment or level of conflict, the intent of satelliting is the retention of the initiative and most importantly, the maintenance of flexibility to respond to any developing situation or threat.

Patrol Order/Event Scenario.

1. Conduct a presence/security patrol in the town.
2. Endstate outlined in the company commander's orders is:
    a. A safe and secure environment within the TAOR.

Scripted Incidents:

1. Information is passed to patrol by a local about the location of Yugo soldiers in the town.
2. NGO representatives (International Committee of Red Cross) being harassed by elements of the local population.
3. A chance meeting between the exiting Yugo soldiers and the platoon patrol.
4. Inter-ethnic violence involving a sniper shooting of a local national.
5. Inter-ethnic violence involving an angry crowd who had detained a person believed to be responsible for leading reprisal killings in a neighbouring village.

Event Reconstruction.
Due to the limited size of the MOUT facility only one multiple was able to move effectively in the town at one time. Consequently, the other multiple was held in a staging area, vicinity of A11, representing another area of the town where they would be conducting patrols. The Platoon Commander was in charge of the first multiple with RTO and four fire-teams of three. The Platoon Sergeant was in charge of the second multiple with RTO and four fire-teams of three. The Platoon Commander led multiple one with the Platoon Sergeant's multiple on standby. The Platoon Sergeant then took out multiple two. The profiles were geared towards having one of the multiples required by events to reinforce the other.

Order of March:

Multiple one (Platoon Commander and four fire-teams of three), Multiple two (Platoon Sergeant and four fire-teams of three).

Timeline:

1st Iteration

1300 H hour.
1343 NGO vehicle interface vicinity DB.
1347 Mob on NGO vehicle D10.

2nd Iteration

1415 Multiple departed staging area vicinity gas station.
1417 CNN interview action vicinity around corner of building.
1421 Informed of possible weapons cache.
1438 Vicinity of schoolhouse: 4 Yugo soldiers identified. Screaming girl. Miscommunication from multiple leader down to Marines for escorting Yugo soldiers out of AO.
1445 Hasty Bus search commences vicinity of schoolhouse.
1448 Yugo soldiers depart—no escort.
1439 Yugo soldiers stop vicinity of playground because of no escort.
1453 Confrontation of civilians and Yugo soldiers vicinity of playground.
1505 Additional team from 1st Multiple reinforces 2nd Multiple to escort Yugo soldiers to handover point.

3rd Iteration

1513 1st Multiple departs.
1517 1st Multiple given information about two armed men vicinity of town square.
1524 Team sweeping town square.
1528 1st Multiple reports two vehicles blocking road vicinity B3.
1534 1st Multiple encounters crowd at blocked vehicles.
1536 Plt Cmdr alerts 2nd multiple of situation—possible reinforcement.
1538 Warning shots were fired—cleared by Platoon Commander.
1539 "Take somebody down" from Platoon Commander to team on scene—Marines initiate firing into crowd.
1540 Platoon Commander orders 2nd multiple to scene.
1540 Sniper fire from B3. 4 Marines were shot: 3 from 1st Multiple / 1 from 2nd multiple.

1542 1 Sniper runs from B3 and shot.
1544 2nd Multiple enters B3 to clear out sniper. 2 more Marines were shot from 2nd Multiple.
1549 All wounded personnel gathered up.
1551 2nd sniper killed in B3.

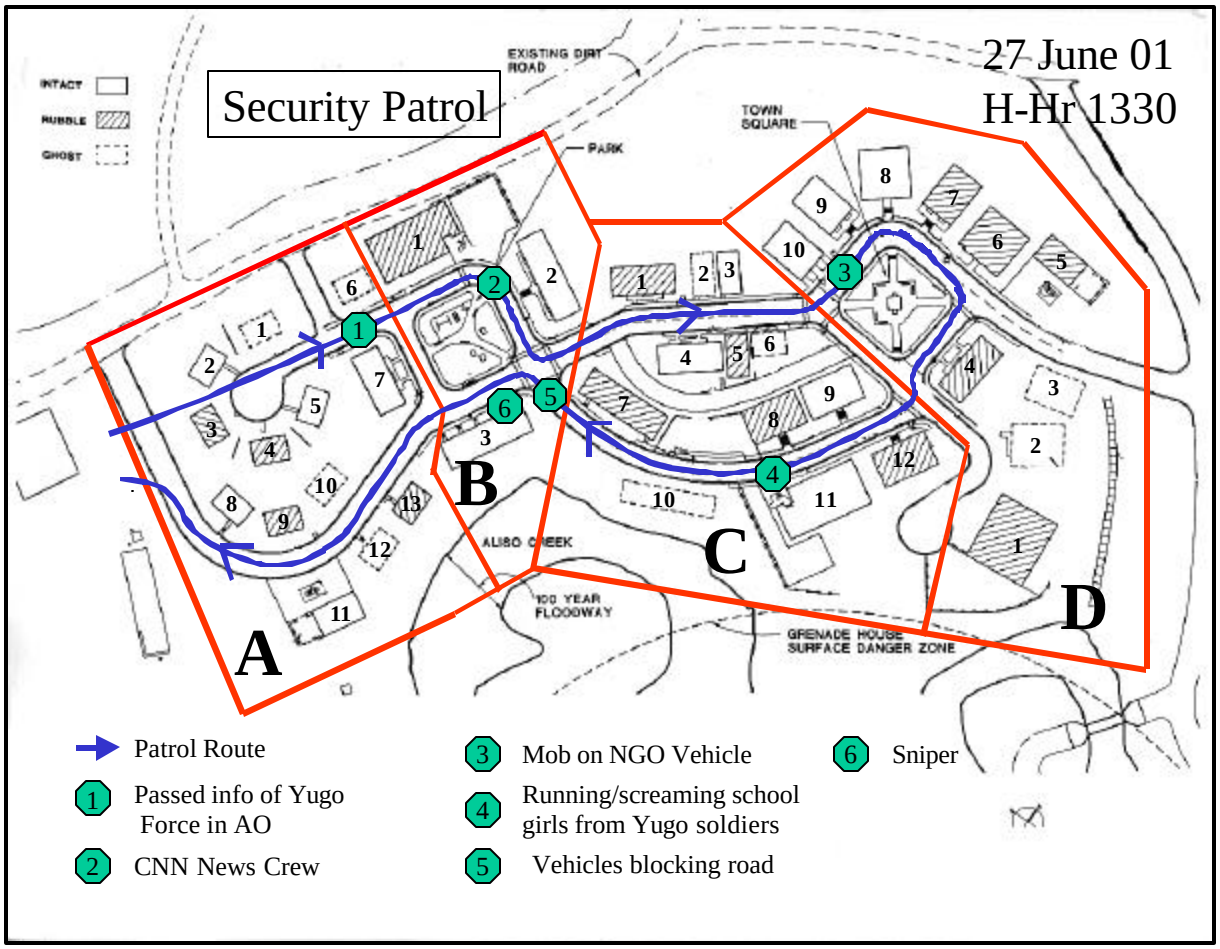


Figure 3. Patrol Route and Incident Location¾ Event 2

Observations.

1. Supporting teams were focusing inward too much when incidents were being dealt with.
2. Transition from low to higher intensity was not aggressive enough and lacked control.
3. Reactions to minor incidents were very good both by the squad leaders and platoon commander.
4. Marines' response to incidents was limited to verbal warnings, some physical contact and lethal force.
5. The multiple movement, specifically individual and team bounding and overwatch and multiple satelliting was good
6. Basic individual skills were much improved over the previous days experimentation and previous training efforts.

7. Role players reported that they were confused as to the direction of movement of the patrol and to the exact size of the patrol.

Deductions.

1. Difficulty experienced by the platoon in responding to situations requiring an escalation of force was due to a lack of TTPs for the linking up the two multiples of the platoon and a lack of experience in the subsequent transition along the force continuum to the conduct of a conventional operations.
2. Lack of experienced NCOs in the platoon also contributed to these difficulties. In the absence of experience in this environment, units were not capable of escalating force and regrouping to conduct conventional type operations.
3. An additional area of concern centers on how to apply the new task organized multiple to conduct an attack that traditionally uses the three maneuver elements based on squad entities, of assault, support and security.
4. Further work must be done on the application of the multiple to see if it is a suitable task organization for conventional operations. For example, a squad based on four x four man fire-teams and a command element.
5. Individual and team movement was greatly improved over the previous day of experimentation. Mentoring and additional instruction by the Royal Marine O/Cs greatly assisted the Marines in applying the TTPs. This highlights a requirement to put additional practical application time into the revised training package.
6. The indication from role-players that they were unable to determine the exact patrol size, direction of travel or task indicate that the multiple method of task organizing and the satellite method of patrolling have clear advantages in the PKO/PEO environment.
7. Nonlethal capabilities must be issued and carried by the rifle platoon when on patrol in the PKO/PEO environment. The shooting incident during the third iteration may well have been avoided if the Marines had other options/capabilities to employ between the issue of verbal warnings and the use of lethal force. This could range from enhanced training in negotiation and mediation to use of specific weapons such as baton rounds and/or distraction devices (flash/bang grenades) and CS or OC gas. We can learn employment lessons from the UK Forces' experience in Northern Ireland and the Israeli Defense Force experience in the West Bank. Once we have the weapons available, we would incorporate their employment in BUST and the PKO/PEO training package.

28 June 2001 Experimental Day 3¾ Event 3: House Search

Objectives.

1. Evaluate the suitability of the *Multiple* method of patrolling for PKO/PEO in the urban environment.
2. Evaluate the suitability of house search TTPs for PKO/PEO in the urban environment.

Experimental Tactics.

1. Phase One. Establish an outer security cordon.
    a. This involves one multiple conducting satellite patrolling on approaches to the objective.
    b. The aim of this cordon is to provide security to the inner cordon and search teams through the observation and reporting of personnel and vehicle movement.
    c. The outer cordon is also able to conduct searches of suspect personnel and vehicles if required.
    d. This phase includes the final preparations for employment of the second multiple as the inner security element.
    e. Phase One ends with the establishment of the outer cordon.
2. Phase Two. Position an inner security cordon.
    a. This task is completed by the second multiple and involves providing security to the immediate area of the objective and establishment of a Control Point from which the Platoon commander can direct the actions of all multiples and teams.
3. Phase Three. Conduct the search and other action at the objective by a single team from the second multiple.
    a. If required, interpreters, military or civilian police, could support this team.
    b. This phase also includes handling any detainees, confiscation of weapons, contraband and reinforcement by EOD technicians when required.
4. Phase Four. Withdraw each multiple to the patrol base or continue patrolling activity.
    a. Departure of vehicles or reinforcements called in to support the search is covered by the elements of the inner cordon.
    b. Following this, the multiple providing the inner cordon departs.
    c. Overwatch and security is provided by the second multiple in the outer cordon.
    d. The second multiple then patrols away from the incident area.

Patrol Order/Event Scenario.

1. Conduct a house search on the patrol route in building D9 where intelligence reports that a cache of weapons and ammo is stored.
    a. The platoon is to use one multiple to set an outer cordon of security while the second conducts the search.

Scripted Incidents.

1. International cable TV news team is continuously hounding the patrol.
2. An NGO representative requests help in returning displaced persons back into their home.
    a. Other people are currently residing there.

3. An armed person attempts to escape from the house during the search.
4. Marines are presented with local people who are angry with them for apprehending personnel from the house search (because weapons were found there).

Event Reconstruction.

Order of March:

Multiple one (Platoon Commander, RTO and 3 fire-teams of four), Multiple two (Platoon Sergeant, RTO, 3 fire-teams of four and CAAT team with 3 Marines as security).

Timeline:

1234 H hour.
1240 Media Contact w/ first multiple.
1241 Contact by NGO (Red Cross) person to tell team member that a number of displaced personnel are in a certain area.
1245 Face to face contact between Platoon Commander and Red Cross personnel.
1249 Team from 1st Multiple moves in to evict personnel from B2.
1252 Coordination w/ Red Cross conducted for elderly personnel withdrawal. Elder in house needs assistance to move.
1255 CAAT vehicle brought to scene.
1302 Displaced persons in house—custody of squatters given to Red Cross.
1306 CAAT team is designated as the primary team. Other teams to satellite off of CAAT vehicle vice Platoon Commander.
1307 Area Clearance vicinity of target house by 1st Multiple—gave away intent of the House Search. Role Player moves from target house with weapons. Role player escapes.
1310 2nd Multiple arrives on scene.
1312 Outer cordon set on target house D9.
1315 Inner cordon established on target house—around two houses.
1318 Team from 1st Multiple into D10.
1319 Outer cordon tested by vehicle. Vehicle told to turn around.
1330 2nd Multiple apprehends civilian behind D8.
1336 Team from 1st Multiple completes house search. No security on first deck. Civilians moving in and out of house being searched.
1340 Multiple 1 passes through Multiple 2 on primary route. Multiple 2 takes up rear w/ the apprehended civilian and weapons.
1348 Multiple 2 bounds back through Multiple 1 to return to company base.
1350 Aggressive action by role players on rear element. One role player taken to ground.
1357 Multiple 1 back to company base. Endex.

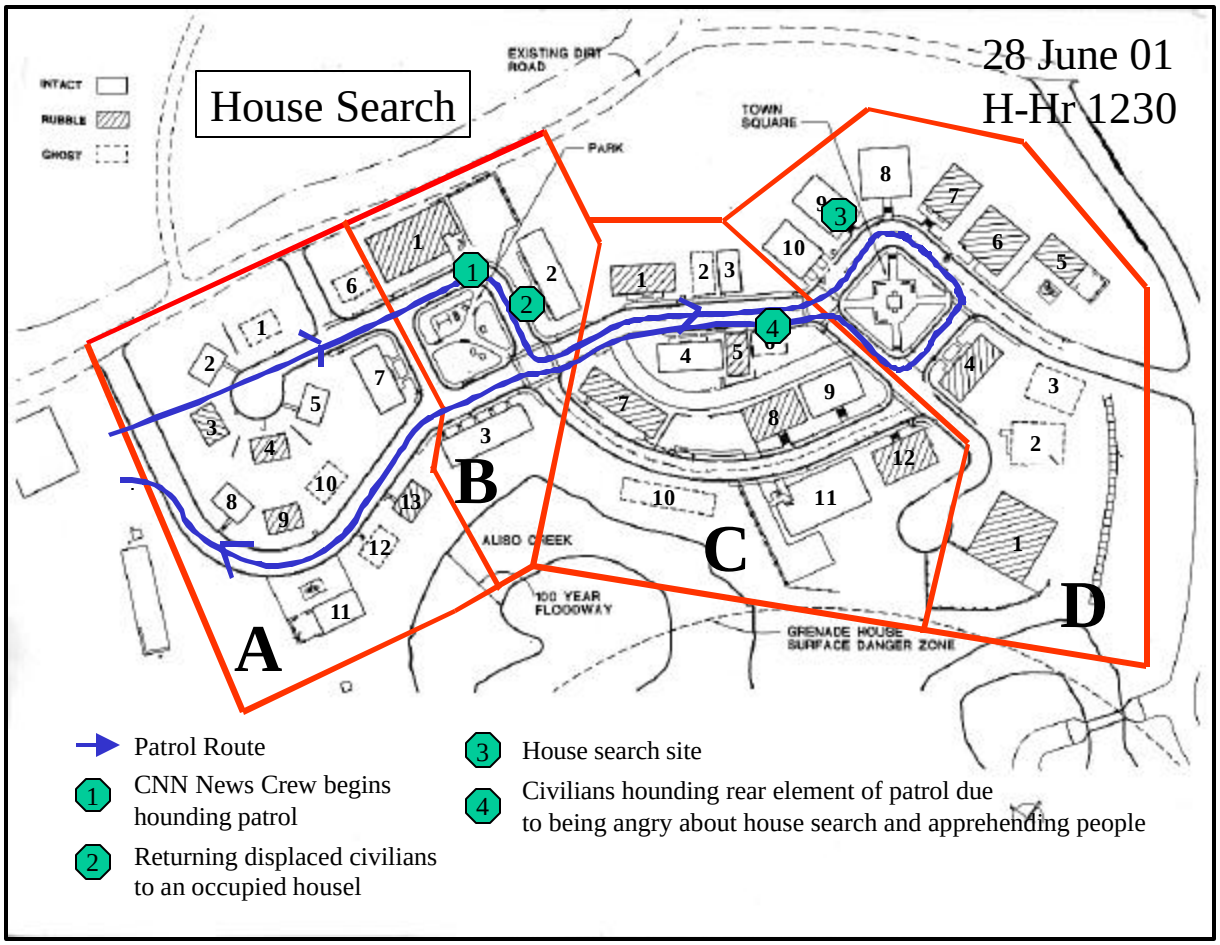


Figure 4. Conduct of Multiple Patrol and House Search¾ Event 3

Observations.

1. Outer cordon must be established before inner cordon in order to ensure that the search team is provided with a degree of security.
2. It was not possible for the outer cordon to stop all movement or traffic.
3. Rough handling of crippled civilian squatter by Marines during eviction could lead to significant reaction by local population.
4. Urban navigation went astray putting Marines in wrong building—C2 between inner, outer cordon and search team.
5. Focus of attention was still inward.
6. Civilians should not be touching Marines.
7. Communications issues between multiples must be resolved to avoid confusion and misinformation.
8. Movement/satelliting was solid.

Deductions.

1. Team leaders and individual Marines must be aware of the potential impact of their decisions and actions.
    a. Rough treatment of the old invalid man could have escalated into a nasty situation for the multiple commander.
2. Additional training and instruction on interpersonal skills and communication for team leaders should improve the handling of situations like this.
3. Individual Marines should also be given guidance on how to handle local nationals' personal security when under their control. For example, they should learn ways to carry their weapons in a non-threatening manner while not leaving themselves or the noncombatants vulnerable to attack.
4. The sequence for the search task must be adhered to
5. Patrol activity very close to the objective prior to the establishment of the outer cordon compromised surprise.
6. Role-players reported that they believed this activity was in fact the inner cordon and that the search was imminent.
    a. This resulted in role-players shifting the weapons cache located in the objective to an adjacent house and later attempting an escape from the objective.
7. House search sequence must be second nature to Marines.
    a. Platoon and squad leader training has to emphasize this in all training evolutions.
8. Search units must avoid the tendency to rely on existing building markings and numbering in MOUT facilities.
    a. As shown during this experiment, this can easily lead to a search being conducted on the wrong house because of a failure in basic urban navigation techniques.
9. Internal multiple and platoon communication still requires attention.
    a. When the multiple commanders and all fire-team leaders are using the same frequency on an ISR, the system is ripe for overload and compromise by the enemy.
    b. The USMC does not at this time have a secure radio between the platoon commander and the squad leaders or an individual radio for each Marine.
10. Marines are vulnerable to personal—if nonlethal—attack in these types of operations.
    a. This highlights the need for Marines to have a less-than-lethal way to respond.
    b. Some capabilities worth considering are the extendable baton, stream pepper spray and other irritants, flash/bang grenades, and baton rounds for the 40mm.
11. Individual movement of Marines within the fire-teams and the movement of fire-teams within the multiple were good. The level of confidence and application demonstrated gives a good indication of the time that must be allocated to practical application in training. At present not less than three full days should be allocated to patrolling practice.

28 June 2001 Experimental Day 3¾ Event 4: Vehicle Check Point

Objectives.

1. Evaluate the TTPs for the conduct of a house search in a PKO/PEO environment.
2. Examine the force escalation from PKO/PEO to a Block III (high intensity) situation.

Experimental Tactics for Vehicle Check Points (VCPs).

The VCP techniques were developed from current Marine Corps doctrine, US Army and Allied/foreign force material. The VCP TTP used four phases.

1. Phase One. Multiple one establishes an outer security zone or cordon.
    a. This multiple uses satelliting techniques to provide security for the other multiple that completes the search and control operations.
2. Phase Two. Establish an inner protective zone that focuses on:
    a. Providing security for the search teams.
    b. Conduct of the search.
    c. Phase two is completed by multiple two.
3. Phase Three. Elements of multiple two conduct the search.
4. Phase Four. Withdraw from the VCP to the firm base or to continue the patrol.
    a. Multiple two vehicles withdraw from the checkpoint area followed by withdrawal of the rest of multiple two.
    b. Multiple one patrol activity covers this withdrawal.
    c. Once all inner protective zone and search elements are clear of the area, multiple one moves off.

Patrol Order/Event Scenario.

1. Platoon establishes a vehicle checkpoint (VCP) in the vicinity of C7/C8.
    a. One multiple of the platoon operates the VCP
    b. Other multiple provide an outer security zone.

Scripted Incidents.

1. "Wanted" personnel (i.e., fugitives from justice) try to move through the VCP.
2. "Wanted" personnel walk by the security teams located on the outer cordon of the VCP.
3. A sniper team enters the platoon's AO from the north, harasses the local population and then fires on the Marines. The incident escalates warranting a conventional response from the platoon.

Event Reconstruction.

Order of March:

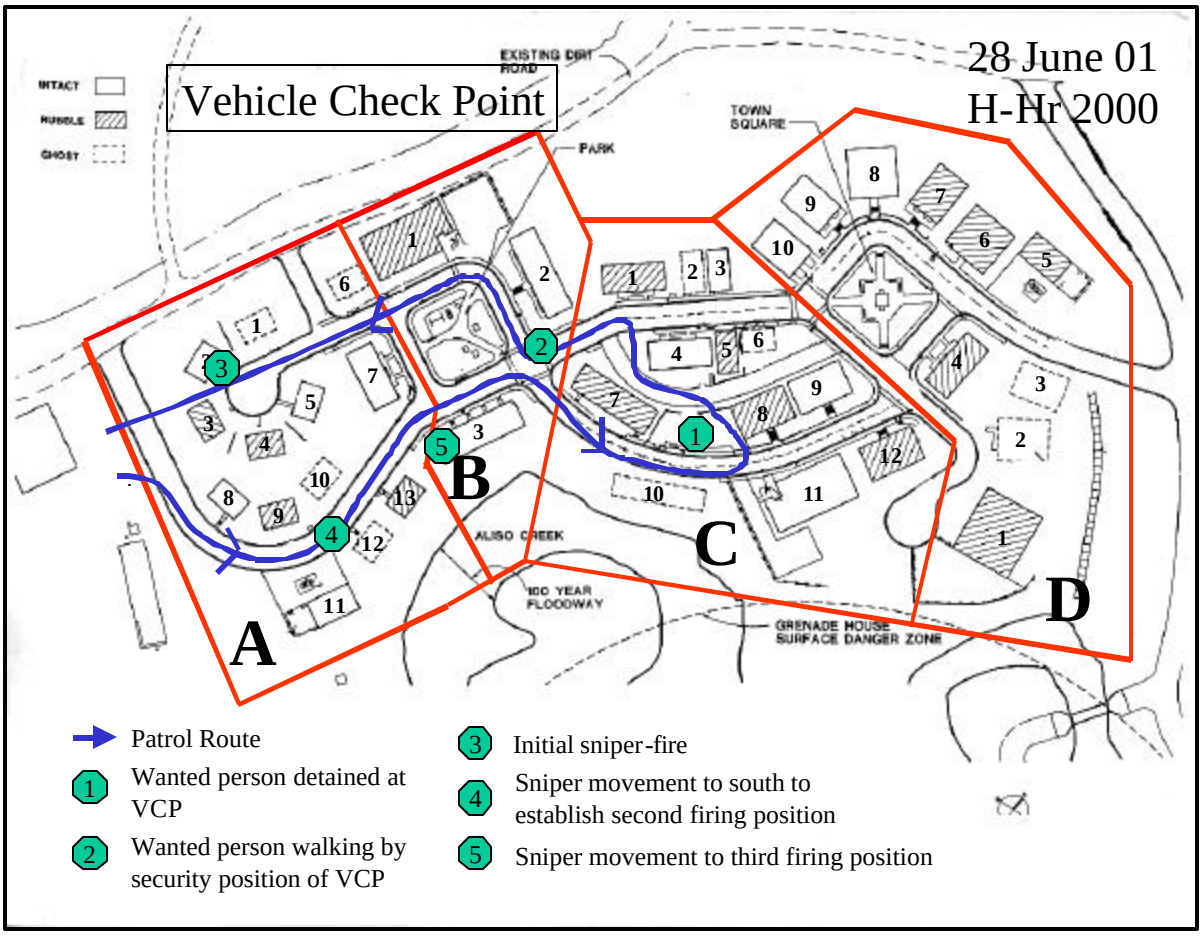
Multiple one (Platoon Commander, RTO and 3 fire-teams of four), Multiple two (Platoon Sergeant, RTO, 3 fire-teams of four and CAAT team with 3 Marines as security).

Timeline:

2007 H hour.

2008 2nd Multiple departs Company Base enroute to VCP.
2015 1st Multiple departs.
2017 First vehicle searched at VCP.
2023 Wire setup at VCP.
2027 VCP established.
2032 "Wanted" role player identified and believed to be in C1. Hasty house search conducted by 1st Multiple. VCP maintained by 2nd Multiple.
2043 Transition to hasty searches vice thorough searches of vehicles.
2044 Multiple 1 misses opportunity to apprehend "wanted" personnel in passing vehicle.
2047 House search in C1 completed.
2055 Role-player nicknamed "Boom-Boom" apprehended in VCP area.
2057 Two weapons found in vehicle at VCP.
2057 Request from Platoon Commander for vehicle pick up of apprehended persons.
2102 CAAT vehicle is a part of vehicle of Multiple 2. Shots fired to take out an identified terrorist. Terrorist dead—dives into wire. Experiment Pause.
2118 Multiple 2 reports that his multiple fired warning shots—trying to build SA of Platoon Commander.
2119 Sniper shots from Yugo forces from A2 into A7. Yugo SAW gunner fires from A2 into A6.
Multiple 2: B2/VCP/C1.
Multiple 1: A1/A4/A12.
2128 Face-to-face briefing to platoon by Platoon Commander to build situational awareness for the group. Casualties taken from continued enemy sniper fire vicinity of A7.
2134 Apprehended personnel loaded into highback HMMWV headed back into playground area. HMMWV then engaged on the east side of the playground.
2138 Two Marines killed/one wounded in engagement from sniper into high-back HMMWV.
2149 Team from Multiple 1 consolidates in A4.
2154 Enemy sniper movement from car to A12 to B3.
2153 Multiple 2 moving on playground.
2155 Detainees at the yellow bus. "Boom-Boom" breaks loose undetected by security team.
2155 Team from Multiple 2 enters into B3 missing sniper. End of Experiment.

Figure 5. Conduct of Multiple Patrol and Hasty VCP ¾ Event 4



Observations.

1. VCP setup was good and utilized the urban terrain well.
2. VCP mobility and responsiveness was satisfactory.
3. Minor equipment additions such as adjustable mirrors and metal detection wands will expedite the conduct of searches at VCPs.
4. Battle procedure for night ops was not thorough.
5. Use of NVGs was poor.
6. Not all Marines had NVGs.
7. Passage of information between teams and multiples was only adequate.
8. Link up between teams of multiples and between multiples in the escalation from Block II to Block III requires practice.
9. Hesitation in transition/escalation of force.

Deductions.

1. Design and conduct of the VCP followed what was taught in BUST. It was well executed, however it was not easily moved and lacked flexibility once set.

2. Location of such a large VCP would quickly be passed amongst the local community and therefore could eventually probably be avoided.
3. VCP procedures were good.
4. Vehicles were searched thoroughly as were personnel who moved through the VCP.
5. Some refinement is required on the procedures for the handling of detainees and link up with elements for from higher for the removal of suspects.
6. Current (BUST) TTPs are valid for control operations, but should be complemented with the ability to conduct hasty (called "snap" by the UK Forces), squad and fire team level VCPs.
7. The addition of large diameter search mirrors and metal detection wands will help with the speedy conduct of searches at the VCP.

1. Hasty/snap VCPs are conducted by a fire-team.
2. Its purpose can be to stop and search any suspect vehicle, but can also be used to unhinge the enemy when all fire-teams of the multiple conduct hasty/snap VCPs simultaneously.
3. The hasty/snap retains the initiative and gives the commander flexibility.

8. Communications *within* the platoon are still creating problems.
9. Our results show that the platoon should have a single, secure radio and net that would extend down to fire-team leaders to be used by each multiple commander to maneuver his team while enabling command of the entire platoon by the platoon commander when required. A suitable radio to meet this need would be the AN PRC 148 Multi Band Inter/Intra Team Radio (MBITR).
10. The platoon deployed without its full allocation of night vision devices (NVDs). This hampered the effective execution of the platoon's attack in reaction to the threat.

Summary of Findings

Satellite Patrolling and Multiple Task Organizing. The satellite method of patrolling has shown merit in the urban environment for PKO/PEO. In combination with proper task organization of the multiples, it provides good command and control while enhancing maneuver to provide robust opportunities for surprise. This method also covers a larger area and permits the employment of swarm tactics while always retaining the initiative. We will conduct future experiments to clarify structural issues. The focus will be on whether to form the multiple based on the current rifle squad (three fire teams of four), or whether it should be based on four fire-teams of four when specifically task organized for PKO/PEO.

BUST Search Methods. The personnel, vehicle and house search methods as taught in BUST proved functional and effective in PKO/PEO. Based on the experiment results, we will amplify the lessons on actions inside the objective house and actions for reinforcing the platoon conducting the search.

BUST Vehicle Checkpoints. Current BUST lessons/TTPs are functional and effective for deliberate VCPs. However, we will bolster the material to include squad level and fire team level *hasty/snap* VCP TTPs to give commanders the greatest degree of flexibility in PKO/PEO.

Time Allocated for BUST. It was apparent that shortening the time allocated for BUST disadvantaged the Marines. To avoid this, Marines should complete the full BUST package prior to the focused PEO/PKO training, This means that training time should to be increased to include further practical application of transitioning from the already heavy demands of patrolling to the specific skills of house/vehicle/personnel searching and checkpoint/VCP operations. And, we saw a real need to have base level training in interpersonal and communication skills taught against the backdrop of the culture of the inhabitants of the PKO/PEO area of responsibility.

Command and Control. Our results show that there is a requirement for secure communications within the platoon—among the platoon commander, platoon sergeant, all squad leaders, and the platoon corpsman. The ISR is adequate for the fire team leader level.

Nonlethal Options/Capabilities. We did not experiment with any nonlethal options. However, our experiments highlighted a need for *all* Marines operating in the PKO/PEO environment to be able to respond to provocation(s) with less-than-lethal force. Clearly, the inappropriate use of lethal force is of great concern in the PKO/PEO mission.

Recommendations

1. Continue experimentation and development of the Satellite and multiple approach to patrolling.

2. Refine, develop and integrate into BUST (PKO/PEO portion) the search methods so that they can be further evaluated during MCWL experimentation in February 02.

3. Expand the VCP operations package to included snap and hasty VCPs conducted at the squad and fire team level.

4. Increase the training time for the PKO/PEO package to allow for additional practical application. This PA should reflect an incremental approach with a build up of skills from the individual level through team to the multiple/squad and patrols.

5. Continue experimentation with the command and control architecture for the platoon, especially as it applies to secure communication between the platoon commander and his key subordinates. (Note: The MCWL *Tactical Warrior* series of experiments is now addressing this issue.)

6. Experiment with types of nonlethal capabilities that can be readily available to infantry units involved in PKO/PEO. Include employment methods and logistic issues associated with these options.

7. Develop and experiment with culturally oriented communications skills for Marines involved in PKO/PEO.